REMARKS

Upon entry of this amendment, claims 1-36 and 40 are all the claims pending in the application. Claims 37-39 and 41 are canceled by this amendment.

I. Foreign Priority

Applicants note that the present application claims priority under 35 U.S.C. § 119. The Examiner, however, has not acknowledged the claim for priority or acknowledged receipt of the certified copy of the priority document. Accordingly, Applicants kindly request that the Examiner acknowledge the claim for foreign priority and confirm that the certified copy of the priority document has been received.

II. Claim Objections

The Examiner has objected to claims 5, 6 and 14 for the reasons set forth on page 2 of the Office Action. Applicants have amended these claims in a manner to overcome the Examiner's objections. In particular, Applicants note that the acronym SIMD has been spelled out in claim 5, and that the term "is" has been removed from claim 14. Accordingly, Applicants kindly request that the objections to the claims be reconsidered and withdrawn.

III. Claim Rejections under 35 U.S.C. § 112, second paragraph

The Examiner has rejected claims 9-27, 38 and 39 under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants have amended claim 9 so as to replace the phrase "the function" with the phrase --a function--. Accordingly, Applicants kindly request that the rejection be reconsidered and withdrawn. As noted above, claims 38 and 39 have been canceled by this amendment.

IV. Claim Rejections under 35 U.S.C. § 101

The Examiner has rejected claims 1-40 under 35 U.S.C. § 101 allegedly being directed to non-statutory subject matter.

Regarding claims 1 and 40, Applicants note that claim 1 is now drawn to a "compilation method" and that claim 40 is now drawn to a "compiler stored on a computer-readable medium". Accordingly, Applicants kindly request that the rejection be reconsidered and withdrawn. As noted above, claims 36-39 have been canceled by this amendment.

V. Claim Rejections under 35 U.S.C. § 102

A. The Examiner has rejected claims 1, 28-36, 40 and 41 under 35 U.S.C. § 102(b) as being anticipated by Inoue (U.S. 5,758,164).

Claim 1, as amended, recites the features of a detection sub-step of detecting whether or not the first intermediate code in the format of the function invocation refers to the operation defined in the operation definition information; and a substitution sub-step of substituting the first intermediate code in the format of the function invocation with a corresponding machine language instruction in response to the detection in the detection sub-step, and wherein, in the optimization step, the intermediate codes are optimized by performing one of the following: (1) combining the corresponding machine language instruction of the first intermediate code in the format of the function invocation and the second intermediate code in the format of the machine language instruction into one machine language instruction, (2) removing redundancy between the corresponding machine language instruction of the first intermediate code in the format of the function invocation and the

second intermediate code in the format of the machine language instruction, and (3) changing an order of the corresponding machine language instruction of the first intermediate code in the format of the function invocation and the second intermediate code in the format of the machine language instruction.

Applicants respectfully submit that Inoue does not disclose or suggest the above-noted features recited in amended claim 1.

Regarding Inoue, Applicants note that this reference discloses a language processing system for translating a source program into a machine program. In particular, the translation system of Inoue includes a parsing portion 20, an optimization enabling and disabling information generating portion 30, an optimization enabling and disabling judgement portion 40, an optimization processing portion 50, and a code generating portion 60 (see Fig. 1).

As explained in Inoue, when a source program 70 is input to the language processing system, the source program 70 is subject to parsing by the parsing portion 20, and an intermediate code 80 is generated (see col. 6, lines 9-13). Enabling and disabling information is subsequently generated by the optimization enabling and disabling information generation portion 30, the enabling and disabling information being indicative of a range of the intermediate code for which optimization can be performed (see col. 6, lines 14-22).

As explained in Inoue, by inserting the code "OPTBEG" at the beginning of the detected optimization range, and inserting the code and "OPTEND" at the end of the detected optimization range, the optimization process is performed within the range defined by these two codes (see col. 6, lines 23-37). As such, as disclosed in Inoue, optimization is performed only for the selected range in the intermediate code 80 so as to output an optimized intermediate code 90, whereby the optimized intermediate code 90 is then converted into the

machine language program 100 by the code generating portion 60 (see Fig. 4 and col. 6, lines 38-51).

Based on the foregoing description of Inoue, Applicants respectfully submit that while Inoue discloses a language translating system that is able to identify a range of the source program that is to be optimized and performing the optimization process only on the identified range, that Inoue does not include any disclosure related to the above-noted features recited in claim 1 drawn to a conversion sub-step of detecting whether or not a first intermediate code in a format of a function invocation refers to an operation defined in operation definition operation; a substitution sub-step of substituting the first intermediate code in the format of the function invocation with a corresponding machine language instruction in response to the detection in the detection sub-step, and wherein, in an optimization step, the intermediate codes are optimized by performing one of the following: (1) combining the corresponding machine language instruction of the first intermediate code in the format of the function invocation and the second intermediate code in the format of the machine language instruction into one machine language instruction, (2) removing redundancy between the corresponding machine language instruction of the first intermediate code in the format of the function invocation and the second intermediate code in the format of the machine language instruction, and (3) changing an order of the corresponding machine language instruction of the first intermediate code in the format of the function invocation and the second intermediate code in the format of the machine language instruction.

In view of the foregoing, Applicants respectfully submit that Inoue does not disclose, suggest or otherwise render obvious all of the features recited in claim 1. Accordingly,

Applicants submit that claim 1 is patentable over Inoue, an indication of which is kindly requested.

Claims 28-36 depend from claim 1 and are therefore considered patentable at least by virtue of their dependency.

Regarding claim 40, Applicants note that this claim has been amended so as to recite the features of a detection unit operable to detect whether or not the first intermediate code in the format of the function invocation refers to the operation defined in the operation definition information; and a substitution unit operable to substitute the first intermediate code in the format of the function invocation with a corresponding machine language instruction in response to the detection by the detection unit, and wherein the optimization unit performs optimization by one of the following: (1) combining the corresponding machine language instruction of the first intermediate code in the format of the function invocation and the second intermediate code in the format of the machine language instruction into one machine language instruction, (2) removing redundancy between the corresponding machine language instruction of the first intermediate code in the format of the function invocation and the second intermediate code in the format of the machine language instruction, and (3) changing an order of the corresponding machine language instruction of the first intermediate code in the format of the function invocation and the second intermediate code in the format of the machine language instruction.

For at least similar reasons as discussed above with respect to claim 1, Applicants submit that Inoue does not disclose, suggest or otherwise render obvious at least the above-noted features recited in claim 40. Accordingly, Applicants submit that claim 40 is patentable over Inoue, an indication of which is kindly requested.

Regarding claim 41, Applicants note that this claim has been canceled by this amendment.

B. The Examiner has rejected claims 37-39 under 35 U.S.C. § 102(b) as being anticipated by Sterling et al. (U.S. 5,822,588). As noted above, claims 37-39 have been canceled by this amendment.

VI. Claim Rejections under 35 U.S.C. § 103(a)

A. The Examiner has rejected claims 2-4 and 7-27 under 35 U.S.C. § 103(a) as being unpatentable over Inoue (U.S. 5,758,164) in view of Sterling et al. (U.S. 5,822,588).

Claims 2-4 and 7-27 depend from claim 1. Applicants submit that Sterling et al. fails to cure the deficiencies of Inoue, as discussed above, with respect to claim 1. Accordingly, Applicants submit that claims 2-4 and 7-27 are patentable at least by virtue of their dependency.

B. The Examiner has rejected claims 5 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Inoue (US 5,758,164) in view of Bik et al. (U.S. 2001/0006667).

Claims 5 and 6 depend from claim 1. Applicants submit that Bik fails to cure the deficiencies of Inoue, as discussed above, with respect to claim 1. Accordingly, Applicants submit that claims 5 and 6 are patentable at least by virtue of their dependency.

VII. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue

which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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